



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,733	02/14/2001	Dana Stephen Smith	8371-121	2665
20575	7590	09/22/2004	EXAMINER	
MARGER JOHNSON & MCCOLLOM PC 1030 SW MORRISON STREET PORTLAND, OR 97205			THOMPSON, JAMES A	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/784,733

Applicant(s)

SMITH ET AL.

Examiner

James A Thompson

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to because figures 1 and 2 fail to label the boxes of the flowcharts and reference said labels in the specification. Further, in figures 3 and 4, the axes are not labeled and therefore do not clearly show what is being graphed. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

On page 5, the equations are not numbered. Furthermore, the fourth equation contains an obvious formatting error.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 refers to a "high order polynomial". However, neither claim 5 nor the specification clearly defines what is meant by a "high order polynomial". At what order is a polynomial considered a high order polynomial with regard to the described method? For the purpose of the color transformations to be performed by the method, would a third-order, fifth-order, or tenth-order polynomial be considered high order? A polynomial is considered high order in terms of the application and the physical process being performed and is different for different physical processes.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Taguchi (US Patent 5,937,232).

The computer-readable medium including software code of claim 8 performs the method of claim 1.

Regarding claims 1 and 8: Taguchi discloses a computer-readable medium (figure 9(911) of Taguchi) including software code (column 13, lines 45-46 of Taguchi) that, when executed, results in reception of a user input indicating a color adjustment for a color original (figure 8 and column 12, lines 59-64 of Taguchi); selection of a transform based upon user input (column 13, lines 3-8 of Taguchi); application of the transform to color values to produce adjusted color values (column 13, lines 9-17 of Taguchi); and processing of the adjusted color values for conversion into printer space (column 14, lines 14-17 of Taguchi). In order to perform the printing operation (column 14, lines 14-17 of Taguchi) it is inherent that said adjusted color values are converted into printer space. Otherwise, said adjusted color values will not be in the proper format necessary for printing.

Regarding claim 2: Taguchi discloses that the user input indicates a boost of color values (figure 28(curves for C, M and Y) and column 18, lines 8-14 of Taguchi).

The user selects from among a plurality of possible γ -correction curves (column 18, lines 8-14 of Taguchi). Said γ -correction curves are also used for processing scanner image data (column 13, lines 3-8 of Taguchi). The curves shown in figure 28 of Taguchi for the colors C, M and Y are clearly used to boost the color values since the shapes and slopes of said curves show that the γ -values are greater than one for the γ -corrections of the C, M and Y colors.

Regarding claim 3: Taguchi discloses that the user input indicates a reduction of color values (figure 8 (curves for R, G and B "After Correction") and column 12, lines 61-67 of Taguchi). The user selects from among a plurality of possible γ -correction curves (column 13, lines 3-6 of Taguchi). The curves shown in figure 8 of Taguchi for the "After Correction" colors R, G and B are clearly used to reduce the color values since the shapes and slopes of said curves show that the γ -values are less than one for the γ -corrections of said R, G and B colors.

Regarding claim 4: Taguchi discloses that the user has an option to press one of a plurality of selection keys to optionally perform various color correction processes and image editing processes (column 12, lines 50-57 of Taguchi). The user is not required to select any of these processes, so by not selecting a process and simply performing printing, the user input indicates no adjustment of color values.

Regarding claim 7: Taguchi discloses that the second scan data is γ -corrected (column 13, lines 60-64 of Taguchi) and displayed next to the first scan (uncorrected) data (figure 14 and column 14, lines 1-4 of Taguchi). The display and updating of the

data is controlled based on the pressing of the plane switching key (column 14, lines 4-8 of Taguchi). Therefore, the calculation of the adjusted color values occur at run time.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi (US Patent 5,937,232) in view of Stenzel (US Patent 5,737,032).

Regarding claim 5: Taguchi does not disclose expressly that the transform is one of the group comprising a difference of exponential functions, a high order polynomial, a piecewise linear function, and a difference polynomial function.

Stenzel discloses a color correction transform using a piecewise linear function (column 10, lines 2-6 of Stenzel).

Taguchi and Stenzel are combinable because they are from the same field of endeavor, namely color correction of digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a piecewise linear function, as taught by Stenzel, for the color correction transform. The motivation for doing so would have been to permit for changes to the slope of the transfer function at the extremes of the luminance (column 10, lines 6-9 of Stenzel). Therefore, it would

Art 7nit: 2624

have been obvious to combine Stenzel with Taguchi to obtain the invention as specified in claim 5.

Regarding claim 6: Taguchi does not disclose expressly that applying the transform further comprises using the color values as indexes into a lookup table.

Stenzel discloses applying a color correction transform using the color values as indexes into a lookup table (column 9, line 63 to column 10, line 1 of Stenzel).

Taguchi and Stenzel are combinable because they are from the same field of endeavor, namely color correction of digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a lookup table for the color correction transform, said lookup table being indexed by the color values, as taught by Stenzel. The motivation for doing so would have been to permit additional offsets to the color signals (column 10, lines 11-16 of Stenzel). Therefore, it would have been obvious to combine Stenzel with Taguchi to obtain the invention as specified in claim 6.

9. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi (US Patent 5,937,232) in view of Metz (US Patent 5,666,293).

Regarding claim 9: Taguchi does not disclose expressly that the computer-readable medium further comprises a downloadable file.

Metz discloses a computer-readable medium that comprises a downloadable file (column 8, lines 36-40 of Metz).

Taguchi and Metz are combinable because they are from similar problem solving areas, namely computer data processing and control. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a downloadable file as the computer-readable medium, as taught by Metz. The motivation for doing so would have been to be able to upgrade the code (column 8, lines 33-35 and lines 39-40 of Metz). Therefore, it would have been obvious to combine Metz with Taguchi to obtain the invention as specified in claim 9.

Regarding claim 10: Taguchi does not disclose expressly that the computer-readable medium further comprises a driver upgrade file.

Metz discloses a computer-readable medium that comprises a driver file (column 17, lines 59-62 of Metz). Said driver file is a part of the operating system (column 17, lines 59-60 of Metz), and can therefore be upgraded (column 8, lines 32-38 of Metz). Said driver file is therefore a driver upgrade file.

Taguchi and Metz are combinable because they are from similar problem solving areas, namely computer data processing and control. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a driver upgrade file as the computer-readable medium, as taught by Metz. The motivation for doing so would have been to be able to upgrade the code (column 8, lines 33-35 and lines 39-40 of Metz). Therefore, it would have been obvious to combine Metz with Taguchi to obtain the invention as specified in claim 10.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
16 September 2004



THOMAS D.
~~THOMAS~~ LEE
PRIMARY EXAMINER